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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,724	07/15/2004	Ludwig Bar	2001P22564WOUS	4377

7590 05/29/2008  
Siemens Corporation  
Intellectual Property Department  
170 Wood Avenue South  
Iselin, NJ 08830

EXAMINER
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AURORA, REENA

ART UNIT	PAPER NUMBER
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2862

MAIL DATE	DELIVERY MODE
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05/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/501,724	BAR ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Reena Aurora	2862	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 13 - 17, 19, 21, 23, 26-27 and 31 - 32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13, 16, 17, 19, 21, 23, 27 and 31 is/are rejected.
- 7) ☒ Claim(s) 14 - 15, 26, 32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This communication is in response to amendment received on 2/20/08.

Claims 13 – 17, 19, 21, 23, 26 – 27 and 31 – 32 are presented for examination.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13, 16 - 17, 19, 21, 23 and 27 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Hedengren et al. (5,389,876).

As to claims 13, 16 – 17, 19 and 21, Hedengren et al. (hereinafter Hedengren) discloses a flexible eddy current probe array comprising a flexible base (19, fig. 2c) comprising a front surface (surface away from the flexible rear layer 11) that comes in contact with a test body; a single signal coil (14); a single excitation coil (12); wherein the signal coil (14) and the excitation coil (12) are arranged in a planar form in a single layer on a rear surface of the flexible base (19); and a flexible rear layer (11) comprising a ferrite material that at least partially covers and contacts the signal coil (14) and the excitation coil (12) (col. 8, lines 51 - 66); wherein the flexible base (19), the signal coil (14), the excitation coil (12), and the flexible rear layer (11) are assembled in a flexible stack of layers that remains sufficiently flexible to allow the stack to be variably matched to radii of curvature on a surface of the test body (fig. 9, col. 12, lines 16 - 35).

As to claims 23, 27 and 31, Hedengren et al. (hereinafter Hedengren) discloses a flexible eddy current probe array comprising a flexible base (19) formed as a flexible sheet of polyimide; a first electrical component (14) connected to the flexible base (19); a second electrical component (12) connected to the flexible base (19); and a rear layer (11) comprising a flexible curable material encapsulating ferrite particles (col. 8, lines 51 - 66), the rear layer attached to at least one of the electrical components (14, 12) on a curved surface of the rear layer (11) to match a curved surface of a test body; wherein the flexible base (19), the first (14) and second (12) electrical components, and the rear layer (11) collectively form an assembled stack that is flexible after curing of the curable material to variably conform to the curved surface of the test body (fig. 9, col. 12, lines 16 - 35).

### ***Allowable Subject Matter***

Claims 14 – 15, 27 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: As to claims 14 – 15, the prior art fails to show that the flexible base is a flexible sheet with a thickness of about 25 microns, the coils each have a thickness of about 17 microns, and the ferrite material extends over a thickness of about 200-600 microns. These features taken together with the other limitations of the claims renders the claims allowable over prior art.

As to claims 27 and 32, the prior art fails to show that the flexible sheet has a thickness of about 25 microns, the electrical coil is a copper coil with a thickness of about 17 microns, the ferrite powder comprises ferrite particles with a mean diameter of about 10 microns, and the encapsulation compound extends over a thickness of about 200-600 microns. These features taken together with the other limitations of the claims renders the claims allowable over prior art.

### ***Response to Arguments***

Applicant's arguments filed 2/20/08 have been fully considered but they are not persuasive. Applicant's argument that "the front layer is not specified, but layer 11 should be considered as the front layer in order to maintain layers 19 and 20 in the same relative order from the test body as in FIG 8d. Finally, layer 11 of FIG 2c should also be considered the front layer for consistency with FIG 6c." Hedengren clearly shows in fig. 8d and 9 that flexible rear layer is 11 and the flexible base layer is 19.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reena Aurora whose telephone number is 571-272-2263. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, P. Assouad can be reached on 571-272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Reena Aurora

/Reena Aurora/

Primary Examiner, Art Unit 2862

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Art Unit: 2862

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